

ment to the Federal Insecticide, Fungicide and Rodenticide Control Act— FIFRA) originally required EPA to review and reregister more than 50,000 formulated pesticide products by October 1976. This deadline was later amended to be 1977 and further amended to remove the deadline entirely. EPA has not been able to complete this process in part because the scientific information available for many of the pesticides is inadequate to determine if they are safe. At the current time, there is an incomplete set of toxicological data for many pesticides currently in wide use and relatively few products—unfortunately, no more than one quarter are fully in compliance with the agency's existing data requirements promulgated in Part 158 of the Code of Federal Regulations. (U.S. EPA, 1981; Committee on Policy Research Management, 1985; and House Committee on Agriculture, 1983.) Environmental data that can be used to estimate the likelihood that pesticides will reach ground water under certain soil and precipitation/irrigation conditions are even more scarce. A major data call-in program was undertaken about 1980, and a wide range of data pertinent to assessing the propensity of a pesticide to reach ground water was requested from manufacturers of 84 pesticides.

In 1984, two researchers from the Department of Environmental Toxicology at the University of California, Davis, reviewed the toxicological and environmental data in the files of the California Department of Agriculture for eight pesticides, all of which were heavily used in California. Of the eight pesticides, it was found that five did not have adequate data to determine the pesticide's potential to contaminate ground water. Missing data included photo-degradation, soil mobility, hydrolysis, and octanol-water partition coefficient. One researcher found that three of the pesticides did not have adequate health data. Missing information included acute oral toxicity, long-term chronic studies, as well as studies on metabolic, teratogenic, mutagenic, or reproductive effects. It was not clear from their report if the data were missing because EPA never received them or because California never requested the information from EPA. Without the environmental data, it is very difficult to make an objective assessment of the potential of a particular pesticide to leach and of the severity of the resulting ground water contamination.

In an attempt to eliminate data gaps in pesticide information, California recently enacted legislation (Assembly Bill 2021, 8/28/85) that will eventually cancel registration in California for any pesticide for which a complete set of environmental fate data is not available. The environmental data required includes water solubility, octanol-water partition coefficient, Henry's Law constant, soil sorption coefficient, soil metabolism, photolysis, hydrolysis, vapor pressure, and field dissipation. The dates of cancellation range from 1986 to 1989 and depend upon the method of pesticide applica-